

(b) 1,2-dihydroxypropyl agarose, at least one of which has been depolymerized after its derivatization.

12. The compositions of any one of preceding claims 1, or 2 wherein hydroxyethyl agarose is the depolymerized hydrogel.

13. The compositions of any one of preceding claims 1, or 2 wherein 1,2-dihydroxypropyl agarose is the depolymerized hydrogel.

14. The compositions of any one of preceding claims 1, or 2 wherein said resolving gel viscosity is reduced to about 5-40 cps when measured at 75° C. in a 3% aqueous solution.

15. The composition of claim 14 wherein said viscosity reduction is effected by at least one of: acid hydrolysis; alkaline hydrolysis; catalytic hydrolysis; enzyme hydrolysis; exposure to gamma radiation; exposure to radiation other than gamma; mechanical shearing; or thermal depolymerization.

16. The composition of claim 14 wherein said viscosity reduction is effected by at least one of: acid hydrolysis; exposure to gamma radiation; or thermal depolymerization.

17. The composition of claim 14 wherein said viscosity is reduced by exposure to gamma radiation.

18. The composition of claim 14 wherein said viscosity is reduced by thermal degradation.

19. The composition of claims 1, or 2 wherein the total hydrogel content of the resolving gel is about 2-12% w/v of the resolving gel.

20. The composition of claims 1, or 2 wherein the total hydrogel content of the resolving gel is about 4-8% w/v of the resolving gel.

21. The composition of claims 1, or 2 wherein said resolving gel buffer comprises at least one of HEPES, glycine, Tris, triethanolamine, or triethylamine.

22. The composition of claims 1, or 2 wherein said resolving gel buffer comprises a borate compound or complex.

23. The composition of claims 1, or 2 wherein said resolving gel buffer is Tris-borate, said stacking gel buffer when present is Tris-glycine, and said electrode buffer when present is Tris-HCl.

24. The composition of claim 2 wherein the discontinuity is at least partially based upon pores of said resolving gel being smaller than pores of said stacking gel.

25. The composition of claim 2 wherein said discontinuity is at least partially based upon a differential between said resolving gel composition and said stacking gel composition as to at least one of: ionic strength, ionic composition, or pH.

26. The composition of claim 2 wherein said stacking gel comprises an agarose or derivatized agarose having a high gel strength and a low (EEO) value.

27. The composition of claim 25 wherein said EEO value has an electroendosmosis value, (M_n) of from (-) 0.15 to (+) 0.05.

28. The composition of claim 25 wherein said EEO value has an electroendosmosis value, (m_r) of from (-) 0.10 to (+) 0.05.

29. The composition of claim 25 wherein said EEO value has an electroendosmosis value, (m_r) of from (-) 0.03 to (+) 0.03.

30. The composition of claim 25 wherein said EEO value has an electroendosmosis value, (m_r) approaching zero.

31. The composition of claim 2 wherein said discontinuous stacking gel is EDAC-agarose or 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride-treated ion-exchanged agarose (EDAC-agarose) or dimethylaminoethyl-agarose (DEAE-agarose).

32. The composition of claim 2 wherein said polyol is present in about 1-5 % wt of the resolving gel composition.

33. The composition of claim 2 wherein said polyol is present and is: ethylene glycol, glycerol, sucrose, sorbitol, a polyoxyethylene glycol of 200-600D, or a mixture thereof.

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